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Product Information

HSP40, GST-tagged, human recombinant, expressed in *E. coli* cells

Catalog Number **SPR5189**
Storage Temperature –70 °C

Synonyms: DNAJB1, HSPF1

Product Description

HSP40 is a member of heat shock proteins (HSPs), which are synthesized in cells in response to heat shock and other metabolic stresses, and provide a transient state of thermotolerance. HSP40 is localized faintly throughout the cell in non-heat-shocked cells and accumulates in the nuclei and nucleoli in heat-shocked cells.[1] The intracellular localization of HSP40 is very similar to that of HSP70. Overexpression of HSP40 reduces aggregate formation and suppresses apoptosis in a neuronal cell model of spinal and bulbar muscular atrophy (inherited neurodegenerative diseases caused by polyglutamine expansion).[2]

Recombinant, full-length, human HSP40 was expressed in *E. coli* cells using an N-terminal GST tag. The gene accession number is NM_006145. Recombinant protein stored in 50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 10 mM glutathione, 0.1 mM EDTA, 0.25 mM DTT, 0.1 mM PMSF, and 25% glycerol.

Molecular mass: ~65 kDa

Purity: 70–95% (SDS-PAGE, see Figure 1)

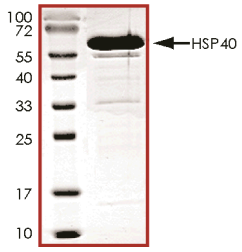
Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

The product ships on dry ice and storage at –70 °C is recommended. After opening, aliquot into smaller quantities and store at –70 °C. Avoid repeated handling and multiple freeze/thaw cycles.

Figure 1.
SDS-PAGE Gel of Typical Lot
70–95% (densitometry)



References

1. Hattori, H. et al., Intracellular localization and partial amino acid sequence of a stress-inducible 40-kDa protein in HeLa cells. Cell Struct. Funct., **17(1)**, 77-86 (1992).
2. Kobayashi, Y. et al., Chaperones Hsp70 and Hsp40 suppress aggregate formation and apoptosis in cultured neuronal cells expressing truncated androgen receptor protein with expanded polyglutamine tract. J. Biol. Chem., **275**, 8772-8 (2000).

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